

What is claimed is:

~~Sub 1~~
~~Sub 2~~
~~Sub 3~~
1. A computerized telephony bridge unit, comprising:

a trunk-line port and associated circuitry for receiving and placing

5 Connection Oriented/Switched Telephony (COST) telephone calls on a COST network;

a data network port and associated circuitry for receiving and placing Data Network Telephony (DNT) calls on a data network;

conversion circuitry for converting data representing calls
10 dynamically between DNT and COST telephone calls; and

control routines adapted for managing operations of the telephony bridge unit;

wherein the control routines are adapted to receive a first call from one of the COST and DNT networks, to place a call associated with the
15 received call on the network other than the network on which the call is received, and to dynamically convert data between the associated calls.

2. The bridge unit of claim 1 wherein the data network is the Internet, and
20 the DNT calls are Internet Protocol Network Telephony (IPNT) calls.

~~Sub 1~~
~~Sub 2~~
3. The bridge unit of claim 1 further comprising a digitally-stored look-up table relating COST telephone numbers to IP addresses, and wherein the control routines are adapted to retrieve specific data from an incoming call,
25 either COST or DNT, and to use the retrieved data to access the look-up table to determine an associated COST telephone number or IP address, and to use the associated COST telephone number or IP address to place a call associated with the incoming call.

~~SUB 62~~
4. The bridge unit of claim 3 wherein the specific data from the incoming call is coded in a portion of an IP address associated with the incoming call.

~~Sub 5~~
~~Sub 5~~
5. The bridge unit of claim 1 wherein the code routines are adapted to receive a DNT call from a caller, and to negotiate with the caller to ascertain a COST telephone number to use to place a COST call associated with the incoming DNT call.

~~SUB 4~~
6. The bridge unit of claim 5 wherein the bridge unit further comprises an Interactive Voice Response (IVR) unit, and wherein the IVR unit negotiates with the caller to ascertain a COST telephone number for a call to be associated with the incoming DNT call.

15 ~~Sub 1~~
1. A method for converting telephony calls between Connection Oriented/Switched Telephony (COST) calls and Data Network Telephony (DNT) calls, comprising steps of:

(a) connecting a COST trunk line to a trunk-line port and associated circuitry for receiving and placing Dedicated Connection Telephony (COST) telephone calls on a COST network, the trunk line port and associated circuitry in a computerized telephony bridge unit;

(b) connecting a data network line to a data network port and associated circuitry for receiving and placing Data Network Telephony (DNT) calls on a data network, the data network port and associated circuitry also in the computerized telephony bridge unit;

(c) receiving a first call from one of the COST network and the data network;

cont.

(d) placing a second call associated with the first call on the network other than the network on which the first call is received; and

(e) dynamically converting data between the two associated calls, thereby proving a continuing and dynamic telephony connection between a COST telephone connected to the COST network and a DNT terminal connected to the DNT network.

8. The method of claim 7 wherein, in step (e) dynamic conversion is between a COST telephone network and the Internet.

9. The method of claim 7 further comprising steps for retrieving specific data from an incoming call on one network, using the retrieved data to access a digitally-stored lookup table and to retrieve from the table a COST telephone number or an IP address on the network other than the network upon which the incoming call was received, and placing a call using the retrieved telephone number or IP address, the placed call to be associated with the incoming call.

10. The method of claim 9 wherein, in the step for retrieving specific data the data is retrieved from a portion of an IP address of the incoming call.

SUBD. cont.

11. The method of claim 7 further comprising a step for receiving a DNT call from a caller, and negotiating with the caller to ascertain a COST telephone number for placing a call to be associated with the incoming DNT call.

12. The method of claim 11 wherein negotiation with the caller is conducted by an Interactive Voice Response unit in the computerized telephony bridge unit.

13. A computerized telephony bridge unit, comprising:

a first port and associated circuitry for receiving and placing calls on a first network, including circuitry for generating data according to a protocol compatible with the first network;

a second port and associated circuitry for receiving and placing calls on a second network, including circuitry for generating data according to a protocol compatible with the second network;

conversion circuitry for converting data dynamically between the first network protocol and the second network protocol; and

control routines adapted for managing operations of the telephony bridge unit;

wherein the control routines are adapted to receive a first call from either the first or the second network, to place a call associated with the received call on the network other than the network on which the call is received, and to dynamically convert data between the associated calls.

14. The bridge unit of claim 13 wherein first network protocol is that of a connection-oriented/switched telephony (COST) network, and the second network protocol is that of a data network telephony (DNT) network in which computer-simulated calls may be processed.

15. The bridge unit of claim 14 wherein the first network is a publicly switched telephony network (PSTN) and the second network is the Internet.

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16. The bridge unit of claim 13 wherein first network protocol is that of a first DNT network, and the second network protocol is that of a second DNT network, wherein the two DNT networks have incompatible data protocols.

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17. The bridge unit of claim 13 wherein first network protocol is that of a first connection-oriented telephony network, and the second network protocol is that of a second connection-oriented telephony network, wherein the two connection-oriented networks have incompatible data protocols.

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